8EHQ 0502-15061

MN 58611

PPG Industries, Inc.
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Research Center
Coatings and Resins

April 29, 2001

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Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

Re: 8EHQ-02-15061 - Final Report

To whom it may concern:

PPG Industries Inc., (PPG), is submitting this information pursuant to Section 8(e) of TSCA.

On December 11, 2001, PPG submitted draft summary information concerning a toxicology study with respect to 2-Ethylhexyl Chloroformate and indicated that the final report would be provided to the EPA once received by PPG. The final report is attached.

In summary: The acute inhalation toxicity of 2-Ethylhexyl Chloroformate was evaluated in a single four-hour exposure study in rats. The test chemical was administered as a vapor atmosphere to five groups of five male and five female albino rats each via whole-body exposure.

Based on the results of this study the LC50 of 2-Ethylhexyl Chloroformate was determined to be 48ppm.

Please telephone me at [412/ 492-5525] if you have any questions.

James Slosnerick
Manager, Global Regulatory Compliance

Attachment

FINAL REPORT

STUDY TITLE

ACUTE VAPOR INHALATION TOXICITY STUDY
OF 2-ETHYLHEXYL CHLOROFORMATE IN ALBINO RATS

DATA REQUIREMENT

Guideline OPPTS 870.1300
OECD Section 403

STUDY DIRECTOR

Gary R. Kiplinger, B.S.

STUDY INITIATED ON

May 1, 2001

STUDY COMPLETED ON

April 8, 2002

PERFORMING LABORATORY

WIL Research Laboratories, Inc.
1407 George Road
Ashland, OH 44805-9281

LABORATORY STUDY NUMBER

WIL-26009

SPONSOR

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
and
OXYCHEM Occidental Chemical Corporation
P. O. Box 809050
Dallas, TX 75380-9050

MA 58611

Acute Vapor Inhalation Toxicity Study of
2-Ethylhexyl Chloroformate in Albino Rats

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PPG Industries, Inc.

Acute Vapor Inhalation Toxicity Study of
2-Ethylhexyl Chloroformate in Albino Rats

SUMMARY

The acute inhalation toxicity of 2-Ethylhexyl Chloroformate was evaluated in this single, four-hour exposure study in rats. The test article was administered as a vapor atmosphere to five groups of five male and five female albino rats each via whole-body exposure. Following exposure, all surviving animals were maintained for a 14-day observation period. Parameters evaluated were mortality, clinical observations, body weights and gross necropsy.

Exposure-related deaths during the study consisted of all 10 animals in the 282 and 488 ppm groups, nine animals (five males, four females) in the 96 ppm group and seven animals (four males, three females) in the 53 ppm group.

Gasping was observed at the approximate midpoint of exposure for several animals in the 282 and 488 ppm groups. Increased respiration rate was noted at the approximate midpoint of exposure for all 10 animals in the 96 ppm group. Clinical observations noted in all groups immediately following exposure were increased respiration rate, wet clear material on the facial area and wet clear or yellow material on the urogenital area. Red material around the nose was observed in the 96 ppm group immediately following exposure. During the 14-day observation period, decreased defecation/urination, hypoactivity, hypothermia, increased respiration rate, red material on various body surfaces and/or yellow material on the urogenital area were observed in surviving animals of the 23, 53 and 96 ppm groups. There were no other toxicologically significant clinical observations during the study. All surviving animals were considered normal by day 5.

Body weight losses (3 to 46 grams) were observed for all surviving animals from days 0 to 3. All surviving animals surpassed their initial day 0 body weight by day 14.

Dark red lungs, dark red areas on the lungs and/or mottled lungs were observed for all animals found dead in the 53, 96, 282 and 488 ppm groups. Ocular opacities were noted for several animals found dead in the 96 and 488 ppm groups and foamy contents in the trachea were observed for some animals found dead in the 96 ppm group. At the scheduled necropsy, dark red and/or mottled lungs were noted for three females in the 23 ppm group.

Based on the results of this study, the LC_{50} of 2-Ethylhexyl Chloroformate was 48 ppm with 95% confidence limits of 33-70 ppm when male and female rats were exposed to test article vapor for a single, four-hour period. The LC_{50} was 45 ppm (95% confidence

SUMMARY (CONTINUED)

limits of 35-57 ppm) for males and 55 ppm (95% confidence limits of 29-102 ppm) for females.